

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-28 (Cancelled)

29. (Currently amended) A method for displaying contig-component relationships comprising:

- a. providing EST data from a plurality of EST source libraries wherein, the EST data comprises: ESTs, their library of origin, and their membership in an assembled contig;
  - b. providing a multi-dimensional display comprising a circular figure, wherein,
    - loci representing each source library comprising the plurality of EST source libraries, are distributed about the periphery of the circular figure;
  - c. assembling contigs by removing EST redundancy, and aligning and clustering ESTs that comprise the plurality of EST source libraries, using an assembly algorithm, thereby producing assembled contigs;
  - d. plotting ~~a~~ at least one symbol within the multidimensional display, corresponding ~~to an~~ to an at least one assembled contig, wherein
    - the at least one symbol is positioned within the multidimensional display according to relative contributions of ESTs from the source ~~library~~ libraries used to assemble the at least one contig;
- thereby displaying contig-component relationships by positioning the at least one symbol corresponding to the at least one assembled contig within the multi-dimensional display, at a point within an area located

between the loci representing the EST source libraries that contributed to assembly of the at least one contig.

30. (Currently amended) The method of Claim 29, wherein positioning the at least one symbol corresponding to the at least one assembled contig within the multidimensional display, is determined as a function of the number of source libraries which contributed at least one EST to the at least one assembled contig.

31. (Currently amended) The method of Claim 29, wherein positioning the at least one symbol corresponding to the at least one assembled contig within the multidimensional display is determined as a function of the proportion of ESTs in the at least one assembled contig that are contributed by each source library.

32. (Currently amended) The method of Claim 29, wherein positioning the at least one symbol corresponding to the at least one assembled contig within the multidimensional display is determined as a function of the number of ESTs in the at least one assembled contig from a given source library relative to the total number of ESTs in the source library.

33. (Previously presented) The method of claim 29, wherein source libraries are members selected from the group consisting of source libraries comprising EST data from: a species, a cultivar, a tissue, a developmental stage, and a stress condition or a combination of such members.

34. (Previously presented) The method of claim 29, wherein the method is used to perform mock microarray analysis.

35. (Currently amended) The method of claim 29, wherein positioning the at least one symbol corresponding to the at least one assembled contig within the multidimensional

display is influenced by the placement of the of the source libraries about the periphery of the circular figure.

36. (Currently amended) A ~~computer program stored on a~~ computer readable storage medium having computer program for displaying contig-component relationships stored thereon, wherein the computer program for displaying contig-component relationships comprising comprises:

- a. a receiving code segment;
- b. an assigning code segment; and
- c. a plotting code segment

wherein the computer program causes a computer to:

- (i) utilize EST data from a plurality of EST source libraries to assemble contigs by removing EST redundancy, and aligning and clustering ESTs comprising the plurality of EST source libraries using an assembly algorithm thereby producing assembled contigs; and
- (ii) plot a at least one symbol corresponding ~~an~~ to at least one assembled contig within a multidimensional display comprising a circular figure, wherein  
the at least one symbol is positioned within the multidimensional display according to relative contributions of ESTs from ~~each the~~ source library libraries used to assemble the at least one contig; thereby positioning the at least one symbol corresponding to the at least one assembled contig within the multi-dimensional display, at a point within an area located between the loci representing the EST source libraries that contributed to assembly of the at least one contig.